

I claim:

Apparatus for assisting a user in viewing images in a standing, seated, or reclining posture, comprising:

5 a moveable headrest mounted on or with respect to a support for supporting a head of said user in executing head movements from a changing direction;

10 a light source, responsive to a light control signal, for providing light for image viewing by an eye in a head of the user acting as a passive viewer; and

15 an actuator, responsive to a headrest control signal, for causing the moveable headrest to execute attitudinal movements for emulation by the head of the user acting as a passive viewer.

20 2. The apparatus of claim 1, wherein the light control signal contains information for providing said light for image viewing by said eye in said head of said user acting as a passive viewer, said images having a portion with high informational content and a portion with low informational content and wherein the portion with high informational content changes position with respect to the portion with the low informational content for emulation by the eye for foveal viewing by said user acting as a passive viewer.

25 3. The apparatus of claim 1, further comprising a variable magnification device, responsive to said light and to a variable magnification control signal, for changing said image viewing to viewing images at various apparent distances.

4. The apparatus of claim 3, wherein said changing apparent distances are for viewing by said eye with correspondingly changing accommodation.

25 5. The apparatus of claim 1, wherein said light source is for providing light for viewing stereo images by two eyes of said user acting as a passive viewer.

30 6. The apparatus of claim 5, wherein the light control signal contains information for

providing said light for viewing stereo images having a portion with high informational content and a portion with low informational content and wherein the portion with high informational content changes position with respect to the portion with low informational content for foveal viewing by the two eyes jointly following said position changes.

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7. The apparatus of claim 6, further comprising at least one variable magnification device, responsive to said light and to at least one corresponding variable magnification control signal, for changing the viewing of images at the various apparent distances.

10 8. The apparatus of claim 7, wherein said changing apparent distances are for viewing by said eye with correspondingly changing accommodation.

15 9. The apparatus of claim 8, wherein the light control signal contains information for providing said light for stereo image viewing having a portion with high informational content and a portion with low informational content and wherein the portion with high informational content changes position for foveal viewing by the two eyes by following said position changes at correspondingly changing points of fixation with correspondingly changing convergence by said two eyes.

20 10. Method for providing light from a light source at an orientation of the light source to an eye in a head of a viewer for formation of images in the eye, comprising the steps of:

providing the light from the light source for the formation of images with a changing point of view; and

25 changing the orientation of the light source in correspondence with the changing point of view for guiding the head of the viewer in a correspondingly changing orientation for viewing the images with the eye in the head of the viewer at the changing orientation of the light source and from the changing point of view.

30 11. The method of claim 10, wherein the images have a portion with high

informational content and a portion with low informational content and wherein the portion with high informational content changes position within the images for foveal viewing by said passive viewer.

5 12. The method of claim 10, further comprising the step of changing the apparent distances of the images with a changing point of view for viewing at the apparent distances by the eye in the head of the viewer.

10 13. The method of claim 11, further comprising the step of changing the apparent distances of the images with a changing point of view for viewing at the apparent distances by the eye in the head of the viewer.

14. Apparatus (10) for providing light (12) to an eye (14) in a head (16) of a viewer for formation of images in the eye, comprising:

15 a light source (18), responsive to a light control signal (20), for providing the light (12) for the formation of images with a changing point of view at correspondingly changing orientations of the light source (18); and

20 a head guide (22) connected to the light source (18), responsive to a head guide control signal (24), for changing the orientation of the light source (18) in correspondence with the changing point of view for guiding the head (16) of the viewer in a correspondingly changing orientation for viewing the images with the eye (14) in the head (16) of the viewer at the changing orientation of the light source (18) and from the changing point of view.

25 15. The apparatus of claim 14, wherein the mover is a robot configuration (32).

16. The apparatus of claim 15, wherein the robot configuration (32) is selected from the group consisting of Cartesian, cylindrical, spherical, and articulated robot configurations.